What Is Claimed Is:

1. A liquid crystal display device, comprising:

an upper substrate including a first soda lime glass material, an ion blocking layer on the first soda lime glass material, a color filter layer, and a common electrode;

a lower substrate including a second soda lime glass material, a transparent organic insulator on the second soda lime glass material, and a thin film transistor on the transparent organic insulator; and

a liquid crystal material layer interposed between the upper substrate and the lower substrate.

2. The device according to claim 1, wherein the ion blocking layer includes a silicon oxide layer

3. The device according to claim 2, wherein the silicon oxide layer is formed at a temperature of less than about 400°C.

4. The device according to claim 1, wherein the ion blocking layer and the transparent organic insulator include the same materials.

5. The device according to claim 4, wherein the transparent organic insulator includes a material selected from a group consisting of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, cardo acrylate, and combinations thereof.

6. The device according to claim 4, wherein the transparent organic insulator is an inorganic material that includes silane.

7. The device according to claim 4, wherein the transparent organic insulator includes an inorganic material that includes two of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, and cardo acrylate.

8. The device according to claim 4, wherein the transparent organic insulator is a hybrid co-polymer that includes more than one of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, and cardo acrylate.

9. The device according to claim 1, wherein the upper substrate further includes a black matrix.

10. The device according to claim 9, wherein the black matrix is disposed on a rear surface of the first soda lime glass material, the color filter layer is disposed on a rear surface of the first soda lime glass to cover the black matrix, the ion blocking layer is disposed on a rear surface of the color filter layer, and the common electrode is disposed on a rear surface of the ion blocking layer.

11. The device according to claim 9, wherein the ion blocking layer is disposed on a rear surface of the first soda lime glass material, the black matrix is disposed on a rear surface of the ion blocking layer, the color filter layer is disposed on a rear surface of the ion blocking layer to cover the black matrix, and the common electrode is disposed on a rear surface of the color filter layer.

12. The device according to claim 1, wherein the first and second soda lime glass materials both have more than 1wt% content of Na_2O.

13. A liquid crystal display device, comprising:

an upper substrate including a first soda lime glass material, a first transparent organic insulator, and a common electrode;

a lower substrate including a second soda lime glass material, a second transparent organic insulator, a color filter layer, and a thin film transistor; and

a liquid crystal material layer between the upper substrate and the lower substrate.

14. The device according to claim 13, wherein the first and second transparent organic insulators are a material selected from a group consisting of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, cardo acrylate, and combinations thereof.

15. The device according to claim 13, wherein the first and second transparent organic insulators are an inorganic material that includes silane.

16. The device according to claim 13, wherein the first and second transparent organic insulators are an inorganic material that includes two of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, and cardo acrylate.

17. The device according to claim 13, wherein first and second transparent organic insulators are a hybrid co-polymer that includes more than one of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, and cardo acrylate.

18. The device according to claim 13, wherein the upper substrate further includes a black matrix.

19. The device according to claim 18, wherein the first transparent organic insulator is disposed on a rear surface of the first soda lime glass material, the black matrix is disposed on a rear surface of the first transparent organic insulator, and the common electrode is disposed on a rear surface of the first transparent organic insulator to cover the black matrix.

20. The device according to claim 13, wherein the second transparent insulator is disposed on the second soda lime glass material, the thin film transistor is disposed on the second transparent organic insulator, and the color filer layer is disposed over the thin film transistor.

21. The device according to claim 13, wherein the color filter layer is disposed on the second soda lime glass material, the second transparent organic insulator is disposed on the color filter layer, and the thin film transistor is disposed on the second transparent organic insulator.

22. A method of forming a liquid crystal display device, comprising:

forming an upper substrate to include a first soda lime glass material, a black matrix, an ion blocking layer, a color filter layer, and a common electrode;

forming a lower substrate including a second soda lime glass material, a transparent organic insulator on the soda lime glass, and a thin film transistor on the transparent organic insulator;

attaching the upper substrate to the lower substrate such that the common electrode faces the thin film transistor; and

forming a liquid crystal material layer between the upper substrate and the lower substrate.

23. The method according to claim 22, wherein the ion blocking layer is a silicon oxide layer

24. The method according to claim 23, wherein the silicon oxide layer is formed at a temperature of less than about 400°C.

25. The method according to claim 22, wherein the ion blocking layer and the transparent organic insulator are formed of the same materials.

26. The method according to claim 25, wherein the transparent organic insulator includes a material selected from a group consisting of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, cardo acrylate, and combinations thereof.

27. The method according to claim 25, wherein the transparent organic insulator is an inorganic material that includes silane.

28. The method according to claim 25, wherein the transparent organic insulator includes an inorganic material that includes two of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, and cardo acrylate.

29. The method according to claim 25, wherein the transparent organic insulator is a hybrid co-polymer that includes more than one of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, and cardo acrylate.

30. The method according to claim 22, wherein forming the upper substrate comprises:

forming the black matrix on a rear surface of the first soda lime glass material;

forming the color filter layer on a rear surface of the first soda lime glass material to cover the black matrix;

forming the ion blocking layer on a rear surface of the color filter layer; and

forming the common electrode on a rear surface of the ion blocking layer.

31. The method according to claim 22, wherein forming the upper substrate comprises:

forming the ion blocking layer on a rear surface of the first soda lime glass material;

forming the black matrix on a rear surface of the ion blocking layer;

forming the color filter layer on a rear surface of the ion blocking layer to cover the black matrix; and

forming the common electrode on a rear surface of the color filter layer.

32. The method according to claim 22, wherein the first and second soda lime glass materials each have more than 1wt% content of Na_2O.

33. A method of forming a liquid crystal display device, comprising:

forming an upper substrate to include a first soda lime glass material, a first transparent organic insulator, a black matrix, and a common electrode;

forming a lower substrate to include a second soda lime glass material, a second transparent organic insulator, a color filter layer, and a thin film transistor;

attaching the upper substrate to the lower substrate such that the common electrode faces the thin film transistor; and

forming a liquid crystal material layer between the upper substrate and the lower substrate.

34. The method according to claim 33, wherein the first and second transparent organic insulators include a material selected from a group consisting of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, cardo acrylate, and combinations thereof.

35. The method according to claim 33, wherein the first and second transparent organic insulators are an inorganic material that includes silane.

36. The method according to claim 33, wherein the first and second transparent organic insulators have an inorganic material that includes two of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, and cardo acrylate.

37. The method according to claim 33, wherein first and second transparent organic insulators are a hybrid co-polymer that includes more than one of acrylate, polyimide, polylefin, benzocyclobutene (BCB), poly oxaxol, cardo epoxy, and cardo acrylate.

38. The method according to claim 33, wherein forming the upper substrate comprises:

forming the first transparent organic insulator on a rear surface of the first soda lime glass material;

forming the black matrix on a rear surface of the first transparent organic insulator; and

forming the common electrode on a rear surface of the first transparent organic insulator to cover the black matrix.

39. The method according to claim 33, wherein forming the lower substrate comprises:

forming the second transparent insulator on the second soda lime glass material;

forming the thin film transistor on the second transparent organic insulator; and

forming the color filer layer over the thin film transistor.

40. The method according to claim 33, wherein forming the lower substrate comprises:

forming the color filter layer on the second soda lime glass material;

forming the second transparent organic insulator on the color filter layer; and

forming the thin film transistor on the second transparent organic insulator.